

What is claimed is:

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1. A silent chain and sprocket assembly
comprising:

a sprocket having a plurality of low profile
protrusions extending outwardly from said sprocket at
5 locations spaced along an outer periphery of the
sprocket;

a silent chain having a series of interleaved inner
and outer link rows that are interleaved along a chain
direction;

10 adjacent inner and outer link rows are joined to
each other by members extending through interleaved
portions of adjacent inner and outer link rows to form a
rotatable joint between the adjacent inner and outer link
rows;

15 the links of said inner and outer link rows form a
surface that overlies the sprocket protrusions and
conforms closely to said low profile protrusions on said
sprocket; and

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the link surface extending along the chain direction
a distance substantially the length of the link along the
chain direction.

2. The silent chain and sprocket assembly of claim 1
wherein the surface of the links that is sized to overlies
the low profile protrusions of the sprocket is at a back-
side of the chain.

3. The silent chain and sprocket assembly of claim
2 wherein the links have a surface that defines two teeth
extending from the link at a front-side of the chain.

4. The silent chain and sprocket assembly of claim
1 wherein the surface that overlies the sprocket
protrusions extends along the chain direction of the
links a distance that approximates the distance from a
center of a member joining the link to one adjacent row
of links to a center of a member joining the link to
another adjacent row of links.

5. A silent chain and sprocket assembly
comprising:

a front-side sprocket, said front-side sprocket
having a plurality of teeth spaced about an outer
5 periphery of said front-side sprocket;

a back-side sprocket, said back-side sprocket having
a plurality of small, low profile, protrusions spaced
about an outer periphery of said back-side sprocket;

a silent chain having a front-side and back-side,
10 said front-side of said chain engaging said front-side
sprocket and said back-side of said chain engaging said
back-side sprocket;

the chain having link plates forming inner and outer
link rows, said inner and outer link rows interleaved
15 along a chain direction;

the link plates having a front-side at the front-
side of the chain, and a back-side at the back-side of
the chain;

the link plates forming two apertures spaced along
20 the chain direction;

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the link plates defining a back-side surface that conforms closely to a portion of the back-side sprocket extending a distance substantially equal to a length of the link plates along the chain direction.

6. The silent chain and sprocket assembly of claim 5 wherein the low profile protrusions of the back-side sprocket are formed by two sprocket surfaces that meet at the protrusion and extend oppositely from each other along the periphery of the back-side sprocket from a first end to a second end a distance that is approximately the length of the back-side surface of the link plates.

7. The silent chain and sprocket assembly of claim 6 wherein the back-side sprocket surfaces are generally flat.

9. The silent chain and sprocket assembly of claim
5 wherein the back-side surfaces of the link plates
closely conform to the low profile protrusions along the
back-side sprocket, to the back-sides formed to extend
5 along the periphery of the sprocket to overlies a
protrusion.